


PHYSIC AND METAPHYSIC.

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HEN I accepted the courteous invitation from your Hon. Secs. again to address this ancient and honourable Society, and began to cast about for a suitable subject, I was somewhat staggered on reflection to find that it is more than a quarter of a century since I began to take part in your debates, and that this is the twelfth occasion on which I have either read a paper or opened a discussion. My previous addresses have covered a tolerably wide range, and have laid under contributions various aspects of that profession which we all regard as second to none in the services it renders alike to the body politic and the individual. I find I have dilated upon "Physiognomy and Phrenology—what are they worth?" on the "Title of Doctor," on the Pathology of Cataract and of Insanity, of Vaccination and its Compulsory Enforcement, on "Public Health and Public Office," on "Medical Work at the L.C.C.," on "Specificity and Evolution in Disease," on "Rationalism and Freethought in Medicine," etc. That in spite of such a series of inflictions you should still desire to hear me again, long after my work on the teaching staff of this Hospital has ceased, and in spite of much of my thought and activity having been occupied in the dusty arena of municipal and educational administration, implies a capacity for forgiveness on the part of the Abernethian Society which I gratefully acknowledge, and a desire to recall old association which I for my part most heartily reciprocate.

If I had to offer any *apologia* for these transgressions and deviations, or if I were to endeavour to find, even in my purely pathological addresses (and running through all of them more or less), some common trend or tendency, I should both urge a justification and advance a generalisation based on the common ground that the *PHILOSOPHY of medicine has not during the last half century received, and is not now receiving, the attention it merits and demands.*

"Oh, physic, beware of metaphysic!" is the silly solecism with which any intrusion of philosophy into the practice and art of medicine and surgery is usually greeted. "Metaphysicians are poets who have missed their vocation" we are scornfully assured by the positivist school of philosophy; and the shallow man in the street will always be found to agree with Lord Bowen's cheap witticism that a problem in metaphysics reminded him of a blind man in a dark room groping for a black hat that was not there. We are so matter of fact, so practical, so utilitarian in the conception of our art that any originality of thought is accounted anathema, logic and philosophy are ruthlessly excluded from the medical curriculum, as if the arts of

thinking and reasoning were out of date or entirely superfluous for the graduate of medicine.

I would rather say to you, "Oh, physician, cultivate your metaphysics." If you would exalt your art in the hierarchy of the sciences, if you would rise above the commonplace and the obsequious, if you will emancipate yourselves from those who seem to think the whole duty of man as a medico is to perform the humble but necessary functions of the apothecary and the accoucheur, if you would find in your work the inspiration of the ideal instead of becoming engrossed by the real, sterilised by the boredom of routine and vulgarised by the merely material, then, instead of dismissing with a sneer or a shrug the appeal of the metaphysician, see for yourselves whether there is not both light and leading to be gained by employing this lamp of philosophy in investigating some of the darker problems of life alike in health and in disease.

Let me not be misunderstood. I am no advocate for armchair or fireside pathology against bedside pathology. I rejoice that accurate observation and painstaking collection of facts have cleared away the mists and cobwebs and shibboleths of the schoolmen who contrived their systems out of their unilluminated inner consciousnesses. True, like these, we may still sometimes be slaves to authority, to tradition, and to fashion, but science having shaken itself free from the shackles of ecclesiasticism is under no obligation to conform itself to theology, and would do well to avoid the discredited methods of sacerdotalism.

But while in physiology and pathology we are under the general influence of the positivist school and of the "experience philosophy," which ignore the "*a priori*" and import the methods of the physical sciences even into the *penetralia* of psychology, we are apt to forget that mental science is *SELF knowledge*, and natural science is *knowledge of OTHER THAN SELF*, that medical science has dealings with both of these, and that the exclusive pursuit of either is apt to warp judgment and paralyse discovery. J. S. Mill admitted that in mental and moral science alike (and he might have added in physical science too) the question of the *a priori* principles, the relation of the mind to truth and duty—"What I am and what I ought to be"—must intrude itself. Those who are of the *a priori* school in morals tend to be so in physics; those who are of the "experience philosophy" are generally utilitarians in ethics. Bacon and Locke and the modern school of the natural scientists are set over against Descartes, Spinoza, and Kant. These latter having seen that geometry had accomplished so much on a *priori* lines tended to push its methods into regions

where they were fore-doomed to failure. The positivists and physicists, on the other hand, have gained the ascendancy, and have pressed their system to impossible lengths. When a *posteriori* induction has done its best or worst there yet remain unanswered questions in the sphere of physics dealing with *space* and *time*, *substance* and *causation*, and in the sphere of morals questions dealing with *duty*, *free will*, and *personality*, which still clamour for recognition and treatment.

That there are already signs and symptoms that the trend towards regarding science or realism as the only knowledge worth having is slackening would not be denied by those who concern themselves with educational meteorology. A reaction towards idealism and the humanities (including the classics and philosophy) is already setting in. In the not very propitious atmosphere of the city of Liverpool, and in the recent report made upon secondary education in that great commercial centre by Prof. M. E. Sadler (p. 12), I find this pregnant remark: "The more likely that a boy's future life-work is to absorb him in questions which necessarily have some sordid sides, the more need is there to insist that throughout his education there shall be a strong vein of idealism which will stand him in good stead, and keep his aims fresh and high throughout his after-life. And at bottom, the business relations of a great commercial city with the outside world are human relations. In no education therefore is it more necessary than in the education of a commercial community to give large place to the vivid and real teaching of the humanities."

What is here said of education generally is not less true, but perhaps more true, of the preliminary education of those who are to enter into the profession with which we are specially concerned. I am prepared to maintain that the ordinary curriculum of study prescribed for the medico in the making is not in fact a liberal education at all. Its tendency, unalleviated by external influences, is towards restriction and compression of the mind rather than towards emancipation, and that in the examples which seem to contradict this generalisation (of which happily our profession can claim not a few) it is not difficult to trace their enlargement to causes which lie outside the stereotyped professional training and routine. To this same lopsided education of medical men is largely due that lack of effective power on the part of our profession, so oft lamented in medical periodicals, in the councils of the nation, in popular administration, and in the education and direction of public opinion. *This is true of all scientific education which ignores, in its strenuous pursuit of "REALITIES," all that our forefathers comprehended in the term "HUMANITIES."* The neglect of the latter, indeed, appears the more strange and inexcusable in the science of medicine than in the case of any other science, seeing that "*man*" in health and in disease is the very quest of medical science. 'Tis her proud prerogative to—

'Expatiate free o'er all the scene of *Man*!
That mighty maze, but not without a plan."

The *plan*, alas, too often is unsought for or unread, and the scene is all, the dramatic movement missed, and the student "is lost in a gloom of uninspired research." The reason of the intellectual impotence and moral ineffectiveness which mark the exclusive pursuit of some one science, or indeed of science itself exclusively, is not far to seek. Matthew Arnold put his finger on the explanation. He said—"Neither humanists nor realists adequately conceive the circle of knowledge, and each party is unjust to all that to which its own aptitudes do not carry it. The humanists are loath to believe that man has any access to vital knowledge except by knowing himself—the poetry, philosophy, history, which his spirit has created; the realist that he has any access except by knowing the world—the physical sciences, the phenomena, and the laws of nature." "But" (he says) "it seems to me that so long as the realists persist in cutting in two the circle of knowledge, so long do they leave for practical purposes the better portion to their rivals; in the government of human affairs their rivals will beat them. And for this reason. The study of letters is the study of the operation of human force, of human freedom and activity; the study of nature is the study of the operation of non-human forces, of human limitation and passivity. The contemplation of human force and activity tends naturally to heighten our own force and activity; the contemplation of human limits and passivity tends rather to check it. Therefore the men who have had the humanistic training have played, and yet play, so prominent a part in human affairs in spite of their prodigious ignorance of the universe; because their training has powerfully fomented the human force in them. And in this way letters are indeed *runes* like those magic runes taught by the Valkyrie Brynhild to Sigurd, the Scandinavian Achilles, which put the crown to his endowment and made him invincible."*

It would seem that the pursuit of the "practical" and the "real," that twin divinity of the common-place intellect, brings about its own nemesis. In seeking to achieve the practical and to grasp reality it is, in fact, eluded by both, and the despised visionary versed in the humanities surpasses the mere man of science in affairs and in results.

Metaphysics, so far as it is concerned with the theory of knowing and being, is not less needed now than formerly as part of the equipment of the true philosopher or the wise physician, but is called in aid by the very inadequacy and insufficiency of materialism to account for phenomena in whose presence we stand to-day.

Last summer, at that *rendezvous* of all that is accounted or accounts itself scientific—the annual meeting of the British Association for the Advancement of Science,—the president of that association, the Prime Minister of England,

* M. Arnold, *Higher Schools and Universities in Germany*, p. 158.

very truly observed, "*as natural science grows it leans MORE, not less, upon idealistic interpretation of the universe.*"

In 1890, in an address to this society on "Rationalism and free thought in Medicine," I said, "Idealism, thanks to the gentle influence of Berkely and Spinoza and more modern thinkers, has knocked the bottom out of materialism, and the relativity of all knowledge goes behind the reckonings of the mere materialist." I do not think that, reviewing the fourteen years of experience gathered in since I used that expression that any one with a scientific reputation to lose will dispute the fact that the truth of the assertion is even more self-evident to-day than perhaps it was then.

Mr. Balfour, with the authority of the first minister of the Crown, addressing a veritable concentration camp of scientists of all sorts, proceeded to demonstrate that "all kinds of matter are composed of ether and electricity. The whole universe, visible and invisible, from the insect at our feet to the starry heavens overhead, is but infinitely varied combinations of ether and electricity or convolutions of ether alone."

Here we have the last word of physical science in the opening years of the twentieth century, and there, perhaps, the Prime Minister might have allowed the conclusion of the whole matter to rest; but he went on to add (and dear must have been this added reflection to the heart of the author of the *Defence of Philosophic Doubt*), "it must be remembered that *no man knows what electricity is, nor has any man experimentally verified the existence of the ether.*" Not content with having thus cruelly overthrown the ethereal and electrical foundations of belief in the existence of an external world, he concluded by citing reasons which to his mind justified the conclusion that in this state of nescience we were destined to remain, since he was led profoundly to distrust the very sources of our experience, seeing that "faculties born and sharpened by struggle for existence" were manifestly unfitted "to elucidate the problems of physical reality or to assist in higher research."

I have not dwelt on these latest enunciations on the present position of physical science in order to conduct you to the philosophic nihilism to which the Premier's vaticinations would seem to point, but merely to show that the materialism and positivism which seemed so unassailable to many in the first half of the nineteenth century and later have caved in under the accumulating discoveries which physical science itself has piled up.

The sagacious Abbé Fleury once declared that our mediæval universities had the misfortune to date from an epoch when the taste for good studies was lost; whether this be so or not, it is a historical fact that medical education, as now stereotyped, dates from a period when materialism was rampant in the spirit of the times.

After the break-up of the various schools of thought and divers systems which dominated the healing art throughout the eighteenth century, and after the suspension of the numer-

ous private schools which flourished during the first half of the nineteenth century, especially in the metropolis, through the association of medical teaching with hospital practice, or by its inclusion in university organisation as in the case of the rising Edinburgh School, the construction of the medical curriculum, as we know it, based on the sciences of chemistry and biology and on through human anatomy and physiology to medicine, surgery, and obstetrics, can be shown to coincide with an epoch during which the gospel of materialism was almost at its zenith. It is not surprising, therefore, that medical education, even at the present time, should still exhibit some of the features and characteristics imposed upon its earlier efforts. Roughly speaking, it was between 1850 and 1870 that the medical curriculum, much as we know it to-day, though now spread over five years instead of three or four, began to crystallise into its modern form. And it is instructive and interesting to inquire what were the momenta then at work in philosophy and science and medicine dominating the minds alike of teachers and of taught, and tending naturally to reproduce themselves in the schools of thought and of medicine then in course of organisation.

Such inquiry or survey of the period would, I think, inform us that modern chemistry, based on the discoveries of Priestley, who escaped the fury of the Birmingham mob, and of Lavoisier, who lost his head in the French Revolution, was insisting upon the indestructibility of matter, the analogy of respiration with combustion, and the chemical composition and metabolism of the human body. Physiology, based on physics and chemistry, was claiming to explain all the phenomena of life in the terms of the laboratory. "Man is what he eats," we were informed with pontifical assurance. "As the liver secretes bile, so the brain secretes thought," shouted Carl Vogt, and in 1854 he ridiculed Rudolf Wagner's *Faith and Knowledge*, and with biting satire poured contempt on the *Creed of a Charcoal Burner*. In the same year, at the Göttingen Congress, we are assured by Prutz that among 500 men of science present not one was to be found who would say a word for Wagner's theory of a "soul substance," or listen with patience to any plea for "spiritual philosophy." Moleschott and Dubois Raymond joined in the rout of the idealists and the overthrow of the metaphysicians. Liebig's "vital force" was resolved, to their entire satisfaction, into its "chemical constituents and electrical reaction." "Without phosphorus there is no thought," was one of the watchwords of this enchanting school of psychological positivists.

Büchner, in his *Kraft und Stoff*, summed up the new creed and spread the gospel of physiological physics throughout Europe and the civilised world. Life he showed, or believed he showed, was but a movement of matter—a dance of atoms; thought—"a radiation through the cells of the grey substance of the brain of a motion set up by external stimuli,"—in the heaven and earth dreamt of in

this dreary philosophy there was no room for such metaphysical superfluities as Deity, or soul, or immortality, or freedom of will. Littré, a pupil of Comte, with great condescension had, however, analysed the soul, and vouchsafed, as the result of his research, that "the soul considered physiologically is the *ensemble* of functions of encephalic sensibility."

Such was the science of life, the philosophy of mind, in the most approved physiological circles of the fifties, sixties, and seventies of last century. While in the world of *thought* this ferment was proceeding, in the world of *things* we find an unprecedented era of industrial and commercial development, the railway, the steam-engine, the telegraph, the factory, political and municipal reform, and the growth of democracy were all exerting their influences, and their combined effect, as a whole, seemed rather to reinforce and emphasise the teaching of science that matter and force were the masters of the universe and the things of the mind, the world of the ideal, and the beautiful, and the good, of relatively subordinate consideration. The stigmata of these teachings of materialism are not difficult to detect.

Thus, in the current creed of the physiologist, as outlined in the text-book of Michael Foster, we are assured that "the greater part of the actions which, looking from a near point of view at the higher animals alone, we are apt to consider as eminently the purposes for which animals come into existence, when viewed from the distant outlook whence the whole living world is surveyed, fade away into the likeness of the mere by-play of ovum bearing organisms."*

Under the gospel of the omnipotence of protoplasm, Huxley scoffed at the absurd assumption of a "vital force." According to his view, it was not to be supposed that the differences between living and not living matter are such as to bear out the assumption that the forces at work in the one are different from those which are to be met with in the other. "A mass of living protoplasm is simply a molecular machine of great complexity." To speak of "vitality" as anything but the name of a series of operations is as if one should talk of the "horology of a clock." And further, he said: "Psychology is inseparably linked with physiology; and the phases of social life exhibited by animals other than man, which sometimes curiously foreshadow human policy, fall strictly within the province of the biologist, and no boundary must be allowed to separate the subject-matter of psychology and sociology which deal with the phenomena exhibited by men in society from the subject-matter of the biological sciences."†

Likewise, Burdon Sanderson, an able exponent of Ludwig's doctrine, and a follower of his methods, was ready to maintain that "animal life, as observed in man, is an aggregate of chemical processes for which food and

oxygen afford materials, the products being heat, muscular action, carbonic anhydride, water and NH_3 ."

Helmholtz, to whom medicine, especially ophthalmology, owes many a debt, waged a life-long war with the spiritual philosophers, he extolled the "school of natural science" to the disparagement of metaphysics, which he compared to astrology, and impressed on his pupils, with all the weight of scientific authority, that a "metaphysical conclusion is either a false conclusion or a concealed experimental conclusion."

I could multiply quotations indefinitely to prove, if proof were required, that the trend of science teaching, and of the applied science which medicine is, ever since the modern medical curriculum, as we know it, took form, has been, until quite recently, under the dominion of the school of materialistic philosophy, which fought its way against theological odds, and, having captured the citadel of orthodoxy and authority, reigned in their place, apparently invincible and unquestioned, during the past half century.

The dethronement, or attempted deposition, of the *humanities*, whether in the form of classical studies, notably Greek (whose retention still convulses the older universities), or in the form of philosophy, is part and parcel of the same struggle. It is unfortunate that the fight for freedom against theological shackles and intolerant ecclesiasticism has often been confounded and mixed up with this battle between the scientists and the humanists, but such confusion is unwarrantable and unhistorical, though it may, by creating an *odium theologicum* or *anti-theologicum*, sometimes have been made to serve the party purposes of one or other of the opposing camps.

Thus it came about that in an education like that of the medical student, standing so proximately related to the study of the animal and physical world as it does, the current doctrine shaped and moulded for at least two generations the theory if not the practice of our honourable profession.

Outside the older universities and the schools within their sphere of influence the apotheosis of science was almost complete.

In the airy phraseology of fiction the author of *Vivian Grey* wittily put it: "In the present day we are all studying science, and none of us are studying ourselves. This is not exactly the Socratic process; and, as for the *γνώθι σεαυτὸν* of the more ancient Athenian, that principle is quite out of fashion in the nineteenth century."

When Herbert Spencer wrote his book on *Education* in 1861, this is the incantation in which he heralded the glories of the new divinity.

"What knowledge is of most worth? The uniform reply is science. This is the verdict on all counts. For direct self-preservation, or the maintenance of life and health, the all-important knowledge is—science. For that indirect self-preservation which we call gaining a livelihood, the know-

* *Textbook of Physiology*, 2nd edition, 1878, p. 567.

† *Manual of Anatomy of Invertebrated Animals*, pp. 1—9.

ledge of greatest value is science. For the due discharge of parental functions, the proper guidance is to be found only in science. For the interpretation of national life, past and present, without which the citizen cannot rightly regulate his conduct, the indispensable key is—science. Alike for the most perfect production and present enjoyment of art in all its forms, the needful preparation is still—science, and for purposes of discipline—intellectual, moral, religious—the most efficient study is once more—science.”*

This eloquent apostrophe of science, penned in 1861, was not unnatural, but I do not think Herbert Spencer would have repeated the same unqualified appraisal of science had he been writing at the close of last century. Indeed, much of his own philosophy contributed indirectly, and perhaps unintentionally, to the undoing of the dogmas of science. In his last book, published in 1902,† we find in the closing chapter a metaphysical yearning after a solution of ultimate questions. He writes: “It is commonly supposed that those who have relinquished the creed of Christendom occupy themselves exclusively with material interests and material activities, thinking nothing of the How, the Why, of the Whence and the Whither. It may be so with some of the uncultured, but it certainly is not so with many of the cultured. In the minds of those intimately known to me, the ‘riddle of existence’ fills spaces far larger than the current conception fills in the minds of men in general.”

It is not surprising that in Mr. Spencer’s case a reaction towards the metaphysical should have thus made itself felt. He was no admirer of the positivist philosophy, and he repudiated Comte, though G. H. Lewes endeavoured to claim him as an apostle of the one and a disciple of the other. His grasp of evolution in its widest signification preserved him from absorption in the slough of positivism. G. H. Lewes was as wrong in thus labelling him a Comtist, as he was right in questioning whether “any thinker of finer calibre has appeared in our country.”

In sketching the momenta which were at work in moulding scientific opinion last century I purposely refrained from mentioning *Evolution*. It was not an omission, but a reservation. Although in its earlier and more grotesque representations, it appeared to crown the profanities of science in their sacrilege of revealed religion, its real and profound influences remained almost unfelt until the last two decades of the nineteenth century; and I venture to assert that its influence, when felt, has been towards—not the establishment—but the undoing of the materialistic philosophy.

At any rate, at the time when the school of Vogt, and Moleschott, and Büchner was rising into fame, evolutionists

were rare and few, and of little account. Huxley, who had himself attacked the eloquent author of the *Vestiges of the Natural History of Creation*, with contumely and “savagery,” asserts that “if a general council of the church scientific had been held” in 1860, evolution would have been condemned by an overwhelming majority. The 500 physiologists who, at Göttingen, scouted the “spiritualistic philosophy,” would, in all probability, have accorded no more favourable reception to the doctrine of mutability of species. Huxley proceeds in 1887 to say “there is as little doubt that if such a council gathered now, the decree would be of an exactly contrary nature,” and he set himself to inquire what the causes could be “which led instructed and fair-judging men of that day to arrive at a judgment so different from that which seems just and fair to those who follow them.”* Possibly an idealistic philosopher, with a turn for sarcasm, might be ready here to interpolate the reflection that, even if inclined to dispute the mutability of species, no reasonable doubt could be entertained as to the mutability of scientific opinion.

Even Darwin, who had proved impervious to Dr. Grant’s enthusiasm for Lamarck’s evolutionary views, when he read the *Vestiges* of Robert Chambers in 1844, denounced its thesis as “monstrous” and “unphilosophical,” though he admitted “its writing and arrangement were admirable.”

Herbert Spencer and Alfred Russell Wallace were from the first thoroughgoing evolutionists, but amid scientists generally the reception of the doctrine was slow, and even when received as an article of faith, it was seldom allowed to leaven the whole conception of the world of nature. As Spencer has observed, “It is curious how commonly men continue to hold in fact doctrines which they have rejected in name, retaining the substance after they have rejected the form,” and he cites the case of Sir Charles Lyell, who united naturalism in geology with supernaturalism in biology. Lyell who laughed at the Mosaic cosmogonists for demurring to the proposition that the causes now operating on the earth’s crust were adequate to explain the changes of the past, was yet unwilling to believe that “the author of nature in the creation and distribution of organic beings followed the same rules formerly as now,” and he failed to “detect any signs of a progressive development of organisation.”† He, too, however, later on joined in the *volte face* of the scientific world, and even claimed to have been a pioneer in the doctrine of evolution.

Consistency appeared to require that the principle should run unimpeded through the organic as well as the inorganic world, and, as a modern writer has said, evolution should enable us to trace development from gas to genius. But what was the effect, and what must be the final result, of these conceptions upon the conclusions so solidly and complacently laid down by the materialists and positivistic philosophers?

* Part of this quotation has been omitted owing to lack of space.
—EDITOR.

† *Facts and Comments*, p. 202.

* *Life of Darwin*, vol. ii, p. 187.

† *Principles of Geology*, vol. i, ch. ix.

The accumulating evidence of the orderly and continuous and apparently continuing and continual development of the universe which has disclosed itself to the scrutiny of the reason, whether in obedience to a law of evolution, a *causa causans*, or a divine will, has entirely altered the point of view from which we contemplate the phenomena of the natural sciences. What we have learned of transmutation of forces, of the mutability of species, of the evolution of the once "unchanging" elements, has given us a dynamic in place of a static conception of the universe as the theatre of action of force, of will, of the realisation of idea, and—

"We doubt not thro' the ages one increasing purpose runs,
And the thoughts of men are widen'd with the process of the suns."

Science in disclosing the methods whereby the phenomena with which it deals have developed, and in synthesising into generalisations—called laws—the *modus operandi* of their interactions has only served in explaining the *How* to raise anew inquiries it has itself left untouched concerning the *Why*, the *Whence*, and the *Whither* of the whole, which to the last occupied the meditations of the great synthetic philosopher. His doctrine of the "unknowable" was shown by Martineau to be untenable. You cannot deny to thought that whose existence you insist upon. "What is intrinsically out of thought is necessarily out of being." What ontologically is cannot be psychologically unthinkable. *Esse* is *percipi* as Berkeley taught us. "The same law of thought which warrants the existence dissolves the inscrutableness of the absolute." This existence of *force* or *will* as *cause* at the back of phenomena is guaranteed to us by thought not by sense or sensory experience. We may not indeed fully *comprehend*, but we must *apprehend*. Mr. Allanson Picton in his last work on *The Religion of the Universe* in identifying Spencer's unknowable with a divine cause and developing a pantheistic religion, admits the keynote of the whole argument is the word that came to Augustine, "If thou canst not conceive what I am to myself *apprehend what I am to thee*."

The veteran evolutionist, Alfred Russell Wallace, Darwin's co-worker and in some respects forerunner, in his book on *Darwinism* adduces reasons for accepting "the spiritual nature of man as not in any way inconsistent with the theory of evolution, but as dependent on those fundamental laws and causes which furnish the very materials for evolution to work upon."*

It is clear from this line of thought that you cannot penetrate far into the study of natural science, whether it be chemistry, or geology, or physiology, or astronomy, or mathematics without arriving at the abyss of the absolute and the shore of the infinite. †

* *Darwinism*, p. 476.

† A paragraph containing quotations from J. Martineau and G. H. Lewes has been omitted here.—EDITOR.

No thoughtful student of any science then can go far without coming across the "*a priorities*." Chemistry and physics compel us to think of the meaning of matter and force. The physiologist must wrestle with "vitalism" whether he will or no, and trace evolution alike in individual and in species. The psychologist encounters at the outset the problem of the nature of sensation and its relation to an external world. The pathologist, whether dealing with body or mind, will be a sciolist indeed if he do not trace in the aberrations of disease the conflict of force, the seeming perversions of will, and reflect upon the nature and meaning of these departures from what he is pleased to regard as the healthy norm. How can the alienist hope to minister to a mind diseased or understand insanity in its protean forms without clearing his mind of cant and getting clear views on free will, conscience, and moral obligation?

Our professional study and practice are interwoven with problems of metaphysical subtlety, and yet no place is found for a course in philosophy for the budding student of medicine. Even the examination in logic and psychology formerly required of an M.D. Lond. was at first relaxed, and is now abandoned altogether under the reconstitution scheme.

I have observed in taking part in debates among medical men, especially among those who have devoted some attention to the study of the mind and its diseases, a tendency to take refuge from all metaphysical questionings in alleging what they are pleased to term a "psychophysical parallelism" as an all sufficient explanation of the mysteries of mind and matter. They are content to allow that between matter with its characteristic of extension and mind with its characteristic of consciousness there is no thinkable point of convergence and contact, and they usually refer to Fechner and Wundt as final authorities for this *ignoratio elenchi*. Those who thus appeal to Fechner as the professor of physics are perhaps unacquainted with that author's excursions into poetry and metaphysics, and know little or nothing of his work on the *Zend Avesta*, and his *Büchlein von Leben nach dem Tode*. While if you turn to Wundt, though you find he opens by brushing aside metaphysics, exalts thought as brain activity, and laughs at the Herbartian Spiritualists, he is finally driven to inquire what the conclusions he has arrived at have to say to "the ultimate questions of psychology." We find him arguing for the continued development of the universal mind, and he allows that psychology has nothing to urge against the continued existence of the individual mind. He allows "That mental phenomena cannot be referred to bodily as effect to cause." Moreover, he says "personal character is the ultimate cause of volition;" external influences may act as motives to conduct, but the causes of volition are internal—a cause necessarily produces its effect, not so a motive. The nature of these springs of action—"whence-so'er they come"—must, he says, be determined by our

general metaphysical theory. And lastly Wundt, whose views have often been wrongly interpreted by the materialists, declares "it is, or should be, the aim of metaphysics to satisfy this craving of the reason for final unification. . . . We must appeal to metaphysics for an answer."

Yes, Gentlemen, "*we must appeal to metaphysics for an answer*," that is the sum and substance of what I have been urging. I plead for a greater regard for the subjective operations of thought, for a recognition of the ratio of the finite to the infinite, for a reverent study of the evidences of the universal mind at work "in man, in nature, and in human life," which must emerge from any dynamic or pantheistic conception of the universe.

Wordsworth has thrown the same thought into noble verse when he argues :

"How exquisitely the individual mind
(And the progressive power perhaps no less
Of the whole species) to the external world
Is fitted—and how exquisitely too
(Theme this but little heard of among men
The external world is fitted to the mind.)"

Such philosophy is no impractical star-gazing, no looking for faces in the fire, it is intensely practical, the method of the true artist, the key note of all noble research, and will pave the way to discoveries, which ever elude the grasp of the mere laboratory hack, and baffle the search of the fact hunter, whose mental horizon is circumscribed by a microscopic objective.

The Baconian method, based solely on observation and induction, is not to be too exclusively cultivated. The deductive or synthetic method practised by Newton, justified by Mill, and exemplified by Herbert Spencer, is peculiarly applicable to the problems of pathology in the present stage of development of that science. Our laboratories and libraries are groaning with accumulations of recorded observations, and silted up with superimposed strata of inductions which have had their day and served a variety of purposes. The quickening influence of the deductive method, of just ratiocination, and honest verification, as yet largely remains untried, but I venture to predict that success will await those who will prepare themselves to adopt it and persistently employ it.

I have endeavoured, with all humility, to make some contribution towards such effort. More than twenty years ago I read a paper before this Society entitled "Specificity and Evolution in Disease." Mr. Herbert Spencer, who accepted the dedication of that paper, was so good as to say "its conception is thoroughly philosophical, and promises to open the way to a considerable reform in pathology."

The views which I have advocated from the year 1881 onwards respecting the evolution of specific diseases, and the paramount importance of soil, predisposition and environment in determining the origin and nature of such diseases have passed through the usual three stages of (1)

wholesale condemnation,—indeed the *Medical Press** accused me of "essaying with all the vigour of youth to demolish the theories of specific diseases which have sufficed to satisfy the acutest physicians of this and every age;" (2) adoption without acknowledgment † (not only of the ideas, but even of the language in which they were clothed); (3) acknowledgment without recognising the process of adoption; and in an article on the "Natural History of Infectious Diseases," by Dr. Thompson in Stevenson and Murphy's work on Public Health,‡ reference is made to my papers of 1884 and 1889, and it is there admitted "that evolution in connection with epidemic diseases, or more strictly their causes, is day by day forcing itself more prominently upon our consideration."

In the most recent publication on *Bacteriology and the Public Health* (Dr. George Newman, p. 28), the view I propounded to this Society twenty years ago is introduced and emphasised, the writer asserting that "he has been impressed in particular as to the truth of this view by the observation of a number of epidemics, by the study of a long series of cultures of the same bacillus on different media, and by antitoxin production." And then referring to my researches he adds: "But the same conclusion has been reached from other premises." Dr. Nash, the Medical Officer of Health for Southend, writing in the *Lancet* (January 14th, 1905), also calls attention to the views I advanced on philosophic grounds so many years ago, and adds that his own observations of infectious diseases, which he is about to publish, confirm my contention.

Again, following the same method, in 1888 in the *Lancet* (August 25th) I propounded a theory of the pathology of cancer, which was derided by those who could entertain no cause that was not bacterial for the production of every ill to which our flesh is heir. I said:—

"The hard-and-fast line which once in the minds of pathologists, though never in the methods of Nature, sharply divided, upon a morphological basis, the benign from the malign, has been wiped out, and the old doctrine of the 'heterology' of malignant growths has been so qualified, restricted, and modified to meet modern requirements that it is practically ruled 'out of court.'"

I then propounded the following thesis. I said:

"If, then, we believe that in her wildest vagaries of pathological neoplasm nature makes no jumps; if we recognise a transition between the simple and the specific, the innocent and the malign, chronic inflammation and cancerous infiltration, sarcoma and carcinoma—in what, then, does cancer consist? In generation, in inflammation, in repair, in carcinomata and sarcomata the individual factor is morphologically apparently identical; what differences

* May 14th, 1884.

* *Medical Record*, August 15th, 1884.

† *Illustrated Medical News*, January 25th, 1890.

‡ Vol. ii, p. 250.

there may be are latent, not expressed. In inflammation, repair, and in malignant growths, then, there is a reversion to embryonal cell type. In the two former processes there is either organisation of embryonal cells into tissue or liquefaction into pus. In the neoplasms, on the other hand, there is indisposition of the component cells either to differentiate into tissue or to suppurate. They lack the influence which makes for organisation; their instincts are of the lowest—are amœboid, in fact. They possess the fecundity of cells unfitted for 'colonial' life, and share their vagabond propensities. Herein lie the factors of malignancy, the causes alike of rapid growth and the infectivity of cancer."

The recently published researches by Professor Farmer, Dr. Bashford, and others have served to show how a *posteriori* investigations have confirmed the theory I had been led to adopt deductively.

I am not so presumptuous as to suggest any *novum organum* of medical discovery, but I do plead for a more philosophical study of the problems of pathology, for a scientific use of the imagination, and especially for a greater application of the deductive method, and for the adoption of that attitude of mind towards such problems as the acceptance of that method implies. Our medical schools are essentially monotecnics; they therefore do not afford that opportunity for cross fertilisation of the sciences which is so fruitful of new lines of investigation, and so profitable for the production of new ideas.

Helmholtz used to say that what others described as his discoveries unfolded themselves to his mind as the application of ideas and methods derived from one science to the purposes of another.

Metaphysicians, said Ribot, are philosophers whose aim is the reconstruction of the synthesis of the universe as we know it.

The repudiation of metaphysic, so characteristic of an age of materialism, such as that in which the modern mighty progress in natural science took its rise, is destined to give place, sooner or later, as Mr. Balfour truly asserted at Oxford, to a more idealistic interpretation of the universe.

The clearer the conception of the evolutionary development of the whole inorganic and organic world of nature, from gas to genius, the more are we impelled to ask the "why" of the gas and the "whither" of the genius if we would lift "the weary weight of all this unintelligible world and see into the life of things."

The universal mind or will that sleeps in the mineral, dreams in the vegetable, awakes in the animal, and becomes self-conscious in man is immanent in all.

Without losing ourselves in the cloudlands of Fichte, or Schelling, or Hegel, we may, with the philosophers, regard matter or body as objectification of will, universal or individual, and with the poet hold that—

"Of the soul the body form doth take,
For soul is form and doth the body make."

That is to say, to translate poetry into physiology, function is antecedent to structure, which it in turn determines and ordains.

While, with Kant, we must admit that our knowledge of the external world—of the other than self—is conditioned by the intuitions of space, of time, and of causality, there is nevertheless in the ego that which transcends these *a priorities* and in consciousness and conscience is free and unconditioned, lays hold upon *immediate* knowledge, and is in communion with the universal mind.

As Martineau has finely said *—

"Laplace, in scanning the heavens with his telescope, could find no God, and Lawrence declared that the scalpel in dissecting the brain, came upon no soul. Both are unquestionably true, and it is precisely the truth of the *second* that vitiates the intended inferences from the first. Had the scalpel alighted on some perceptible soul we might have required of the telescope to perform a similar task; and on its bringing in a dumb report have concluded that there was *only mechanism there*. But in spite of the knife's failure we positively know that conscious thought and will *were* present, yet no more visible yesterday; and *so* that the telescope misses all but the *bodies* of the universe, and their light avails nothing to prove the absence of a living mind through all. If you take the wrong instruments the objects of your search may well evade you. The test-tube will not detect an insincerity or the microscope analyse a grief. The organism of nature, like that of the brain, lies open, *in its external features*, to the scrutiny of science; but on the inner side the life of both is reserved for other modes of apprehension, of which the base is self-consciousness and the crown is religion."

Thus to look on nature is to realise—

"A sense sublime
Of something far more deeply interfused
Whose dwelling is the light of setting suns
And the round ocean, and the living air,
And the blue sky, and in the mind of man
A motion and a spirit that impels
All thinking things, all objects of thought,
And rolls through all things."

The true scientist, under the inspiration of the same thought, turns pantheist, and exclaims—

"The realms of being to no other bow
Not only all are Thine, but all are Thou."

The moralist and pietist may join hands and with the poet declare—

"Our wills are ours, we know not how,
Our wills are ours to make them Thine."

And lastly, a broad and philosophic insight will, I think, bring about a truce between physio and metaphysic, and the devotees of both may yet unite with Tennyson and say:

"Let knowledge grow from more to more,"
But more of reverence in us dwell,
That mind and soul accordingly well
May make one music as before."

* Part of his quotation has been omitted.—EDITOR.

Cases Treated by Bonesetters.

A J—, æt. 20, a mechanic, injured his knee at football, and developed synovitis with a large effusion. He went to a bonesetter, who said his knee was out and put it in. The patient accepted this, and when seen walking a fortnight later still had an enormous effusion which was obvious through his clothes.

2. J. D—, æt. 53, a farmer, broke his thigh, and sent at once for the bonesetter, who kept him in bed without any extension. As he was still helpless after three months a regular practitioner was called in, and found eversion of the foot almost to a right angle and three and a half inches shortening. The patient declined any interference, and expressed his complete satisfaction with the treatment.

3. A. T—, æt. 44, housewife, fell and injured her shoulder, and at the end of a month she went to a bonesetter, who said she had a flesh rent, but never suggested anything being "out." At the end of six weeks the patient still had a well-marked sub-coracoid dislocation of the humerus, which was easily reduced under ether.

4. J. N—, an overgrown lad of 16, who walked with a limp, had pain in the hip, and on examination showed wasting and the other signs of early hip disease. He was advised orthodox treatment, but went to a bonesetter, who said that two guiders had slipped off the hip-joint, and that he would put them on! The boy went about as usual limping for three months, but afterwards his gait improved, and finally he walked quite well.

5. Mrs. N—, æt. 50, farmer's wife, fell from a height of eight feet on to the right hip, and yet was able to walk with assistance. She was treated by a general practitioner for many weeks, but then went to a bonesetter, who said the hip was out, and proceeded to put it in. Some weeks later she was seen by me, and presented characteristic signs of extra-capsular impacted fracture of the neck of the femur.

6. T. B—, æt. 12, farmer's son, complained of pain in his ankle, which came on during an evening at a bonfire, but without any history of an accident. He was taken to a bonesetter, who said his ankle was out, and he would put it in. When seen some weeks later the ankle was swollen, hot, soft on the inner and outer sides, and obviously tuberculous. It has since been scraped more than once.

Remarks.—Case 2 is the worst as the man is a cripple for the rest of his life. The interest attaching to No. 3 lies in the fact that when there really *was* a dislocation it was quite unrecognised. No. 4 apparently got rid of his synovitis of the hip whether it was tuberculous or not.

The six cases are consecutive, and, I believe, typical of bonesetters' results in the cases one does *not* hear of.

J. G. E. COLBY.

NOTE.—We have been fortunate in obtaining a commentary upon the above cases and upon bonesetting in general from Professor Howard Marsh. We purpose to publish the article in the next issue of the JOURNAL.—EDITOR.

The Smoking Concert.

THE second smoking concert of the Students' Union was held on Monday, February 27th, in the Grand Hall of the Criterion Restaurant, under the chairmanship of Mr. Bowlby. The programme was longer and more elaborate than on the previous occasion, and perhaps for that reason there was scarcely the same freshness and spontaneity about the proceedings; but, on the whole, it must be considered a great success. There was a very large audience, including several of the senior staff, and a good number of visitors, among whom we were glad to see Lord Ludlow, whose unexpected arrival during the evening was most gratifying. The secretaries of the Students' Union and the other members of the Concert Committee are to be congratulated on the result of their work, much of which, we understand, was hampered by the incivility and incompetence of the restaurant employées.

The success of the evening was undoubtedly the world-famed Troupe of La Barta Girls from the Martha Theatre of Varieties, under the direction of Mr. H. C. Waldo. The entrance of these six ladies of heroic proportions created a perfect furore. Their dancing was excellent, their costumes were ravishing, and their figures were superb; and Madame Wellbeloved, of Berkeley Street—to whose generosity the Committee are much indebted—must be congratulated upon the great success of the venture.

The concert began soon after 8.15 with the appropriately-named "Martha" overture by the orchestra, under the able direction of Mr. Edward Cawardine. The presence of the orchestra was an innovation, which seemed very popular with the audience. So popular, indeed, was their second piece, a selection from "Veronique," that at times it was difficult to hear the instruments through the voices. Dr. Dundas Grant, as an old Bartholomew's man, must be specially thanked for bringing several members of his company to add strength to the Hospital orchestra.

Mr. George Graham has himself been a patient at St. Bartholomew's, and his musical sketch of an operation, most realistically accompanied by Mr. Gibson, was fearfully suggestive of the new theatre on a Tuesday afternoon. Perhaps his funniest touch was when the unhappy appendix—held up at arm's length by the operator for the inspection of the audience—flies back into the abdomen. As an encore he gave an imitation of actor managers discussing a charity matinée.

Mr. J. M. Smith again bewildered us, first with mesmerised wands and billiard balls, and afterwards with a pack of cards, until we were more than ever convinced of the danger of having him as an opponent either at billiards or at bridge.

Mr. Waldo was at his best when he sang and danced surrounded by the six beautiful La Bartas. Both in "Captain Pott," when they were in pink, and in "Whistling Rufus," when they were in pyjamas, his dancing was wonderfully good. But in the duet with Mr. Berryman he was not quite so happy, and in his monologue earlier in the evening he was far too long. Mr. Crawford's recitation, which in other respects was one of the cleverest performances of the evening, was also rather too long.

The soloists were in good voice, and we were glad to hear the past members of the Hospital most ably represented on the stage by Mr. Holland Wade. The "Twelve Apostles," sung by Mr. Burroughes, was taken up enthusiastically by the house, while the quintette of "White Niggers," accompanied by Mr. Bailey, afforded pleasing variety by singing two of the less well-known plantation songs. The "Serenade by Widor," a trio for violin, 'cello, and piano, was delightfully given by Messrs. Payne and Welch, accompanied by Mr. Mansell Stevens, in the absence of Mr. Pearle.

The three whistling solos of Mr. Charles Capper, one of them (Blumenthal's "Evening Song") being an encore, were extremely pretty, and quite worthy of Mr. Capper's reputation. Mr. Charles Bulwar's ventriloquial sketch was also very clever, while the polyglot history of the immortal "Mr. William Bailey," sung by Mr. Tom Clare, caused the greatest amusement.

The concert ended just before midnight, and the general consensus of opinion was that we all had spent a most enjoyable evening.

PROGRAMME.

1. Overture . . . "Martha" . . . The Orchestra.
 2. Song . . . "Who did it?" . . . The White Niggers (Messrs. Burroughes, Hogarth, Holroyd, Milsom, and Neligan).
 3. Song . . . "Love, could I only tell thee" Mr. Holland Wade.
 4. Sketch . . . Mr. George Graham.
"An Operation from the Patient's point of view"
 5. Card Sleights, etc. . . Mr. J. M. Smith.
 6. Whistling Solo . . . "Les Folies Polka" . . . Mr. Charles Capper.
 7. Monologue . . . Mr. H. C. Waldo.
 8. Trio . . . "Serenade by Widor" Messrs. Payne, Welch, and Mansell Stevens.
 9. Quintette . . . "Pompey's Ball" . . . The White Niggers.
 10. Ventriloquist . . . Mr. Charles Bulwar.
 11. Duet . . . "The East End and the West End" Messrs. R. C. P. Berryman and H. C. Waldo.
 12. Recitation . . . Mr. S. E. Crawford.
"Judd Brownin's Account of Rubenstein's Piano Playing"
 13. Musical Sketch . . . "Bill Bailey" . . . Mr. Tom Clare.
 14. Song . . . "The Twelve Apostles" Mr. H. N. Burroughes.
 15. Selection . . . "Veronique" . . . The Orchestra.
 16. Song . . . "Captain Pott" . . . Mr. H. C. Waldo.
Assisted by the six La Barta Girls from the Martha Theatre of Varieties. (Messrs. Coalbank, Gosse, Hardy, Marshall, Stone, and A. C. Wilson.)
 17. Whistling Solo . . . "Cleopatra" . . . Mr. Charles Capper.
 18. Song . . . "Twenty, eighteen" Mr. H. N. Burroughes.
 19. Song Scena . . . "Whistling Rufus" Mr. H. C. Waldo.
Assisted by the world-famed La Barta Troupe. Full Chorus and Orchestra.
- Accompanists—Messrs. Mansell Stevens, S. Gibson, R. L. Haines, and S. Bailey.

Abernethian Society.

The following officers were elected for the coming year at the Annual General Meeting, on Thursday, March 16th:

Presidents.—Mr. C. M. H. Howell, Mr. E. H. Shaw.

Vice-Presidents.—Mr. W. B. Grandage, Mr. W. G. Ball.

Secretaries.—Mr. R. V. Favell, Mr. K. M. Walker.

Additional Committeemen.—Mr. N. C. Davis, Mr. F. C. Searle.

Notice was given of the following motion by Mr. Neligan: "That the time of the ordinary meetings of the Society be altered from 8 to 8.30 p.m."

The Clubs.

STUDENTS' UNION.

The second Annual General Meeting was held on Thursday, March 9th, 1905. Dr. Herringham presided.

The minutes of the last General Meeting were read and adopted.

The Chairman called upon Mr. Gauvain to read the Annual Report, which appears below. The President, Dr. Herringham, seconded by the Vice-President, Mr. A. H. Hogarth, moved its adoption, and the motion was carried unanimously.

Dr. Herringham, on the proposal of Mr. Hogarth, was enthusiastically re-elected President of the Union for the ensuing year.

The result of the election was announced by Mr. Loughborough as follows:

Constituency A.—Messrs. Horner, Marshall, Hoskyn, Burra, Favell.

„ B.—Messrs. Newton Davis, S. Trevor-Davies.

„ C.—Messrs. Griffin, Phillips, Miles.

„ D.—Mr. Neligan.

Mr. Harmer read a financial statement, and congratulated members on the profits derived from the JOURNAL, which had amounted to £225, in addition to the payment of a debt of £300.

Mr. Harmer proposed, and Mr. Hogarth seconded, the following addition to the rules after an amendment by Mr. Crawford had been accepted: "That the outgoing Council shall have power to elect one of its members as Senior Secretary for the ensuing year." The proposal was carried, and Mr. Loughborough, who had previously been appointed by the Council, was declared elected.

Two other additions to the rules were proposed and carried.

Mr. Favell proposed a vote of thanks to Dr. Herringham, which was carried with enthusiasm.

A meeting of the Council was held in Mr. Favell's room on Tuesday, March 14th, 1905, Dr. Herringham in the chair.

Mr. Neligan was elected Vice-President.

Mr. A. Miles was elected Junior Secretary of the Council.

The following gentlemen were elected as members of the Finance Committee:—Messrs. Burra, Hoskyn, Horner, Neligan, Loughborough.

On the recommendation of the Publication Committee Mr. N. G. Horner was elected Assistant Editor of the JOURNAL.

ANNUAL REPORT, 1904-5.

In presenting its first Annual Report, the Council of the Students' Union would remind members that the past year has been a critical one in the history of the Hospital, and the Council has felt that it must have been the desire of every student to impede in no way the authorities of the Hospital by too urgent demands for alteration and reform. The adoption of this policy has been in every way successful, and we have much pleasure in announcing that, partly as a result of representations made by the Students' Union Commission, and partly on their own initiative, the Hospital Authorities have made provision for adequate Club accommodation in the first of the New Buildings to be erected. The question of the accommodation of midwifery clerks at Mackenzie's has received attention, and we believe it has been decided to provide suitable accommodation in the New Out-patient Block.

At the same time it was felt that improvement, even if temporary, in the Smoking, Abernethian, and Cloak Rooms, was imperative. The matter was carefully considered, and considerable additions have been made to the furniture in the Smoking Room, improvements effected, and conveniences introduced in the Abernethian and Cloak Rooms.

The control of the Abernethian Room has passed into the hands of the Council of the Students' Union, and the comfort of members has been consulted by keeping both the Abernethian and Smoking Rooms open until 8 p.m., instead of until 5 p.m. as formerly. This step was taken in the especial interests of those students who are compelled to remain late at the Hospital, and for whom no provision whatever had previously been made. Alterations have been made in the matter of catering for students. Improvements have been introduced into the Dining Hall, and a new Tea Room has been opened which has been much appreciated and well supported.

One of the most encouraging features of the past year has been the increased enthusiasm shown by the Clubs and Societies of the Students' Union. The papers read before the Abernethian Society during this session have been, as usual, of great value and much interest. It is desirable that students should take a more active part in the work of this Society, either by contributing papers or joining in the discussions.

A new departure was made by the Athletic Club in holding the Annual Sports at Winchmore Hill. Great interest was displayed by both Staff and students, and the success of the meeting was in no small measure due to the generosity of the Staff, and especially to that of Mr. Bowlby and Mr. Bruce Clarke. To Mrs. Herringham our hearty thanks are due for so kindly presenting the hurdles. It was unfortunate that, in spite of the enthusiasm displayed at the Sports, the Inter-Hospital Shield did not come to Bart.'s this year, but we venture to think that this was due rather to want of organisation than lack of material, and we confidently anticipate its return to the Library next season.

The unfortunate result of the Cricket Cup-tie was regrettable, but the experience gained should serve the team in good stead in the coming season.

The event of the Summer was the Past & Present Cricket and Tennis matches, which proved an unqualified success, and attracted a larger attendance than usual.

The Swimming Club had a creditable record, and promising recruits augur well for its prospects in the near future.

In spite of the large number of men using the Lawn Tennis Courts this Club's results were disappointing.

The Shooting Club was unlucky in losing the Cup by one point only.

The Winter Clubs are to be congratulated, one and all, for the increased keenness displayed. Had not the Rugby Football Club lost the services of four of its best men, the result of the Cup-tie might have been very different.

The record of the Association Football Club has been good, though the result of the Cup-tie was unfortunate.

The popularity of the Hockey Club is undiminished, and proof of the interest taken in the game is shown by the three teams which now represent the Hospital.

The Bart.'s team is to be congratulated on winning the Inter-Hospital Cross-country Cup again.

More care than usual has been taken this year in the management of the Club ground, and in this connection we are much indebted to Mr. Bruce Clarke for the great interest he has shown, and for the help he has given. Inquiries have been made as to the advisability of placing the Club ground in telephonic communication with the Hospital, and of erecting an additional gate opening on the west side of the ground, but, for well considered reasons, it was not expedient to adopt either of these proposals, though it is hoped the obstacles in the way will shortly be removed.

The Council has endeavoured not to neglect the social side of its duties, and in this connection attention is specially directed to two highly successful Smoking Concerts and one Dance which have been given. The Union is richer to the extent of nearly £30 by these functions. This should pave the way to future similar, and we hope, equally successful efforts.

The question of Hospital Colours has received earnest attention from a Special Sub-Committee of the Council, and every endeavour has been made to frame suitable regulations.

The excellent work done by Dr. Eustace Talbot, when Editor of the JOURNAL, has been continued, and we desire to give prominence to the efforts of the Publication Committee, and our thanks are especially due to Mr. A. H. Hogarth, Vice-President of the Union and present Editor of the JOURNAL. Under his guidance both the circulation and popularity of the JOURNAL have increased. It is now on a sound financial footing, and is one of our most valuable assets.

Full reports of all meetings of the Council are inserted in the JOURNAL, the wishes of each individual member are consulted as far as possible, and suggestions from students are invited, and when deemed of practical value, adopted.

An endeavour is to be made to collect the minutes of all Clubs and bind them annually. The Council recommends that the election of the Committees of all Clubs should take place immediately after its own election.

By the courtesy of the Librarian a letter-box is now placed in the Library for the convenience of members, and cleared four times daily. The Co-operation of the Medical School Committee has been promised to place an officially recognised letter-box in the Hall of the Medical School.

Arrangements have been made for publishing a Year Book, entirely devoted to the interests of students. Particulars of every Club and Society will be inserted, and it will contain an alphabetical list of past and present members of the Hospital, with their addresses, and other matters of interest and value to members. Advertisements for the

Year Book will be accepted, and it is hoped that thereby the cost of production will be very materially reduced. At least three thousand copies of the first Year Book will be printed. A copy will be presented to every student.

Numerous other less urgent but important matters have received attention, which the length of this report makes inadvisable to record in detail. For further information we refer to the reports of the Council meetings published in the JOURNAL.

The Council hopes that its efforts in the past year will meet with the approval of the Students of the Hospital. It is especially pleased to record that the Union has been one in fact as well as in name, and that the feeling of *esprit de corps* has been fostered and strengthened. In proof of this we instance the increased all-round keenness displayed in the games, and the support given to the Council in its work.

In conclusion the Council has much pleasure in reporting that the first year has been satisfactory in financial matters.

This report, moved by the President, Dr. Herringham, and seconded by the Vice-President, Mr. A. H. Hogarth, was adopted at the Annual General Meeting, held on March 9th in the Anatomical Theatre.

ASSOCIATION FOOTBALL CLUB.

The Association Football Club brought its season to an end with a match against Keble College, Oxford. Although many matches had to be scratched the first eleven has played 23 games, of which 13 have been won, eight lost, and two drawn: goals for, 73; against, 51. The team lost three matches out of the first four played, but this was before the eleven had settled down. In the Inter-Hospital Cup we drew a bye in the first round. In the second round we played Charing Cross, and after a typical cup-tie fight we qualified for the semi-final by a very respectable win of 3 goals to *nil*. The semi-final against St. Thomas's proved disastrous, our men being a little too confident of winning. The match was played in a high wind and a storm of rain. Until twenty minutes of time we led by 2 goals to 1, although we had never played such bad football during the season. For the rest of the time luck was certainly against us, and two goals were scored by our opponents in quick succession. The result was a victory for St. Thomas's by 3 goals to 2. More keenness has been shown during the season by the players, and this is proved by the above record, upon which the eleven is to be congratulated.

C. E. ARMITAGE, a safe goal-keeper, but, unfortunately, has not done himself justice this year. Over-anxious.

H. RIMINGTON, undoubtedly a good full back. What he lacks in stature he makes up for in speed. He should cultivate the art of feeding his forwards, taking a leaf out of his partner's book.

H. HARDWICKE-SMITH, a reliable back. His kicking is always safe, and his tackling is sound. He always passes the ball.

L. T. BURRA tackles splendidly, but plays too far behind his forwards. Has improved greatly this year.

J. R. LLOYD variable. Has played several good games this year.

C. B. D. BUTCHER has this year surpassed expectations. Will be missed out of next year's eleven.

F. J. GORDON brilliant. He dribbles magnificently, and is our chief goal scorer. At times inclined to selfishness.

A. CUNNINGHAM, a newcomer, but immediately secured his place. His shots at goal are great. Will develop into a fine centre.

A. W. HOLTHUSEN, a man who knows the game. Combines in fine style both with his wing man and centre. His shots at goal generally get into the net.

E. R. EVANS has not done so well this year. He plays exceedingly well with Holthusen, but his centres into goal were not up to last season's.

A. MILES, an excellent captain, knows the game well, and plays it.

INTER-HOSPITAL JUNIOR CUP-TIES.

ST. BART'S v. GUY'S.

This match was played at Winchmore Hill on Wednesday, March 1st. Tucker scored for us in the first few minutes from a corner nicely taken by Mead. Play during the remainder of the first half ruled slightly in our favour, but nothing more was scored. After change of ends Guy's kept up a steady pressure on our goal, and only fine work by the defence prevented its downfall. Towards the end our forwards woke up, and as the outcome of several dangerous rushes Hogarth added a second goal. Time was called with Bart's leading by 2 goals to love. The play of Downes, Nash-Wortham, and Barber deserves special mention. Team:

A. Downes (goal); A. Barber and F. Nash-Wortham (backs); W. Glenister, A. Coventon, and A. Weakley (halves); J. Mead, S. Tucker, A. H. Hogarth, S. Upton, and A. Forrester (forwards).

SEMI-FINAL ROUND.

ST. BART'S v. LONDON.

Played at Winchmore Hill on Monday, March 13th, the ground being in a very bad condition. Nash-Wortham being unable to turn out through illness Hodge was included in the team. We won the toss, and started with wind and sun at our backs. Although doing nearly all the pressing half an hour had elapsed before Hogarth ran right through and opened the score. Mead, who was conspicuous throughout, soon followed his example; and Upton added a second goal from his centre. After half-time Hogarth and Upton again scored further goals, the latter with a fine shot from twenty yards range. With London failing to score Bart's thus qualified for the final by 4 goals to love. Of the forwards the left wing and Hogarth played well, while Glenister and Coventon were the pick of the defence.

FINAL TIE OF THE JUNIOR HOSPITAL CUP.

ST. BART'S v. ST. THOMAS'S.

Played at Hale End on Wednesday, March 22nd, in beautiful weather. Play was fairly even for the first quarter of an hour. Hereabouts our forwards found their feet, and scored 4 goals in ten minutes. The final score was 7 goals to *nil*. Hogarth was in fine form, and scored 4 goals, Tucker 2, and Upton 1. The men in black were far superior all round, and the game itself was quite one sided and uninteresting. And so for one year more the cup will reside in the Library. Team:

A. Downes (goal); A. Barber and F. Nash-Wortham (backs); S. S. Langford, W. M. Glenister, and A. S. Weakley (halves); J. C. Mead, S. Tucker, A. H. Hogarth, S. Upton, and A. Forrester (capt.) (forwards).

RUGBY FOOTBALL CLUB.

The season has, on the whole, been a successful one for the 1st XV—7 wins, 1 drawn, 6 defeats.

Up to Christmas the team was only once defeated. But owing to the loss of A. H. Owen and C. S. Lee we have not been so successful this term.

Throughout the season there has been a great deal of keenness shown, and with ordinary luck we should do even better next year.

With regard to individuals, With, though not brilliant, is plucky, and saves well. He lacks that most necessary quality in a back, decision.

H. B. Owen has made an excellent captain, and it is largely owing to his example that the team has been so much more successful this year. He is most reliable in defence, and his swerve makes him very dangerous in attack. An accident robbed the team of C. S. Lee's services through the latter part of the season. He is a strong runner and very sound in defence.

H. Gibson is an excellent kick. His attempts at intercepting have occasionally proved disastrous. Keats is stronger in attack than defence. Way should make more use of his pace, but is very promising.

Coombs, at half, has proved invaluable, and it was most unfortunate that A. H. Owen was crocked, as the pair combined most effectively.

Forwards:—W. B. Grandage has been a most energetic secretary and leader of forwards—a brilliant dribbler. Harris is a hard-working clever forward. Ilott is a good scrummager, though light, and a sure tackler. Hoskyn, always fit, tackles and saves splendidly. Trewhy has improved a great deal, and uses his feet better than last

year. Almond is one of the most improved men on the side, but still has to learn to use his hands. Pearson is good out of touch and in the open; does not always use all his weight. Follitt has been of the greatest service on the few occasions he has played. Oliver, with a little more weight, would be a fine forward. Follows up well and tackles excellently.

INTER-HOSPITAL JUNIOR CUP.

We easily beat St. Thomas's at Winchmore Hill on February 27th by 5 tries to 1 try, Townsend scoring 3 tries, Jamieson 1, and Cross 1.

In the final, played at Hale End on March 22nd, we lost to Guy's by 2 goals (1 dropped) and 1 try to 1 goal and 1 try after a splendid struggle and twenty minutes extra time. The whole team played with such keenness that it is extremely difficult to single out individuals for mention; but of the forwards von Braun, Symes, and Jamieson did excellent service. Our halves were rather weak, for although they played a plucky defensive game they had no idea of opening up the game. Too much praise cannot be given to Oulton, whose splendid services we lacked in the match for the senior cup. He was certainly the backbone of the side, and scored both the tries. Jones played very well at back, but was rather inclined to hang on to the ball instead of kicking. We only hope that with such enthusiasm shown in a Junior Cup tie Bart.'s will soon be running three or four XV's.

2ND XV.

The season has not been altogether satisfactory as only four games have been won. We have suffered throughout from a great dearth of outsides, and the forwards have seen many matches lost for this reason. Several of the older members of the team have shown great keenness throughout the season, and to them our best thanks are due. A much improved fixture list has been arranged for next year.

HOCKEY CLUB.

BART.'S v. SEVENOAKS.

Played at Sevenoaks on Saturday, February 28th. The Hospital won by 6 goals to 4, but had more of the play than the score indicates. There was considerable keenness as to who should score the one hundredth goal of the season; finally O'Neill, with a fine shot, accounted for it. The goals were scored by Griffin (3), O'Neill (2), Adam (1). Team:

Postlethwaite, Furber, Phillips, Berryman, Barton, Page, Gray, Adam, Griffin, O'Neill, Lewis.

BART.'S v. HENDON.

The ground at Winchmore Hill was in a very wet, slippery state, and so scientific hockey was out of the question. Hendon scored twice in the first ten minutes, but the Hospital eventually won by 5 goals to 3. The goals were scored by Griffin (2), Adam (1), Barton (1), Page (1). Team:

Postlethwaite, Furber, J. P. Griffin, Berryman, Barton, Page, Gray, Adam, W. B. Griffin, O'Neill, Lewis.

BART.'S v. BOWES PARK.

Played at Palmer's Green on Saturday, March 11th. The Hospital team, which was very poorly represented, owing to three of the team being laid up with influenza, were defeated by 5 goals to 1. For Bart.'s Furber and Barton played in fine form. Team:

Postlethwaite, Furber, Griffin, Berryman, Barton, Gosse, Gray, Adam, Griffin, Gaskell, Lewis.

BART.'S v. STAINES.

On Saturday, March 18th, the Hospital, with a weak side out, were defeated by 8 goals to *nil*. It was most unfortunate that we had not got our regular team to play Staines, who are our strongest opponents. G. Viner, at centre forward, and B. Barton, at centre half, played well. Team:

Postlethwaite, Furber, Phillips, Lewis, Barton, Gosse, Gray, Adam, Viner, O'Neill, Davis.

ST. BART.'S v. GUY'S.

The above teams met for the second time in the semi-final round of the Inter-hospital competition at Blackheath, on Thursday, March 23rd, when Guy's won by 1 goal to *nil*. The first half was

very evenly contested, Ticehurst scoring the only goal of the match for Guy's. In the second half Bart.'s were pressing almost the whole of the time, but failed to score. On each side the defence was far and away better than the attack. For Bart.'s Furber, Coalbank, and Glenny were in fine form; Barton at centre half also played a very sound game. Team:

J. M. Postlethwaite (goal); L. G. H. Furber, M. R. Coalbank (backs); R. C. P. Berryman, B. H. Barton, G. F. Page (half-backs); H. Gray, G. H. Adam, E. T. Glenny, A. O'Neill, L. F. G. Lewis (forwards).

The Hockey Club has had a very successful season as far as the first and second teams are concerned, but the third team has not won many matches. Throughout the season the defence has been considerably better than the attack. The chief goal scorers were W. B. Griffin 42, A. O'Neill 22, and G. H. Adam 19.

CLUB RECORD FOR SEASON.

| Team. | Matches played. | Won. | Lost. | Drawn. | For. | Goals. | |
|--------|-----------------|------|-------|--------|------|----------|--|
| | | | | | | Against. | |
| 1st XI | 27 | 18 | 7 | 2 | 108 | 72 | |
| 2nd XI | 17 | 8 | 9 | 0 | 56 | 59 | |
| 3rd XI | 13 | 3 | 9 | 1 | 40 | 80 | |

Round the Mountain.

OBITER AUDITA MALAPROPRIANA.

"Very coarse veins." "Fibrarian ovoids." "Costive oil."
"Cancer omnia."

Surgery scrubber (confidingly to nurse).—Yes, that's the stuff for me—that "gingerrhoea" mixture. It speaks for itself.

TALES FROM THE DISTRICT.

Youthful mother (to clerk).—I knew it was to be a black 'aired girl, doctor; I suffered with the 'earburn so.

New clerk (visiting old patient).—I have come to see you instead of your own doctor; he's not coming any more.

Mother.—Yes, I knew he was going to better 'isself this week.

Scene.—Coffee stall, 3 a.m.

Clerk (having received an enormous mug of cocoa).—What! a penny for that!

Proprietor (shortly).—Yus, you know as well as I do that we don't serve 'alpenny mugs at this time in the morning.

Reviews.

HUMAN EMBRYOLOGY AND MORPHOLOGY. By ARTHUR KEITH, M.D., F.R.C.S. (Published by Edward Arnold.) Price 12s. 6d. net.

The recent advances in our knowledge of embryology have necessitated a second edition of this most useful work. The alterations and additions are in fact so numerous that the earlier edition is practically out of date. Embryology is a much neglected subject, and the general impression prevails amongst medical students that it is only necessary to read up this subject when going in for the higher examinations. This is a great mistake, and a fair knowledge of embryology will not only add greatly to the interest of anatomical studies, but will also prove of value in the theory and practice of medicine and surgery.

The subject is so vast that it must necessarily be excessively difficult to condense the material and yet allow of easy comprehension. The author's efforts in this line occasionally result in some difficulty in grasping clearly the meaning of certain points. This fault, however, detracts but little from the value of the work, and the book remains as the most suitable study in embryology in the English language, and as such it can be heartily recommended to all.

AUTOBIOGRAPHY OF FREDERICK JAMES GANT, F.R.C.S. (Baillière, Tindall and Cox.) Price 3s. 6d. net.

This book appears to have been written for private circulation among the author's friends. To the ordinary reader it seems exceptionally dull and egotistical. It is largely made up of long extracts from Mr. Gant's previous writings, together with a quantity of controversial matter on the State Registration of Nurses, and the right of members to representation on the Council of the Royal College of Surgeons. In addition to this there is the story of Mr. Gant's life, and an account of the various processes of his mental development.

THE ELEMENTS OF ANATOMY AND PHYSIOLOGY. By W. B. SECRETAN, M.D., F.R.C.S. (Published by the Scientific Press Ltd.) Price 2s. net.

This excellent little book will serve as a first guide to the elements of anatomy and physiology. It should prove useful to probationers studying for their first nursing examination. It is well illustrated by an abundance of good diagrams.

NAKED-EYE ANATOMY OF THE HUMAN TEETH. By THOS. E. CONSTANT, M.R.C.S., L.D.S. (Published by J. Wright and Co., Bristol.) Price 7s. 6d.

As an introductory study of dental anatomy, this book may be useful to the dental or medical student. The photographic plates are most excellent, and we think it a pity that the photographs of the teeth were rejected in favour of outline drawings, which are not very good. The chapters on the movements of the mandible and of the joint are the best. There is much elsewhere in the book that would be better left in 'Gray's Anatomy.'

Appointments.

ADAMS, G. B. D., B.A., B.M., B.Ch.(Oxon.), appointed Resident Medical Officer to the City of London Hospital for Diseases of the Chest, Victoria Park, E.

COLLINGRIDGE, W. R., M.R.C.S., L.R.C.P., appointed House Physician to the Royal Hospital for Diseases of the Chest, City Road.

COOK, J. B., M.D.(Vict.), M.R.C.S., L.R.C.P., appointed Senior Assistant Medical Officer to the Kensington Infirmary.

PUTTOCK, R., M.A., B.C.(Cant.), M.R.C.S., L.R.C.P., appointed House Surgeon to the General Infirmary, Hertford.

B.A.M.C. Notes.

Lt.-Col. J. M. REID has been appointed Medical Inspector of Recruits for the Southern Command, and is stationed at Salisbury.

Lieut.-Col. S. WESTCOTT, C.M.G., takes up a similar appointment at York for the Northern Command.

Major A. PEARSE, D.P.H., has been appointed Sanitary Officer for the Welsh and Midlands Command, and is stationed at Chester.

The following have embarked for India:—Majors H. W. Austin and H. E. Winter; Capt. C. H. Hopkins; Lieuts. M. F. Grant and G. E. Cathcart.

Capt. F. G. RICHARDS has arrived, tour expired, from India; and Capt. R. H. LLOYD from South Africa.

Lieut. R. C. WILMOT is on sick leave from India.

Postings: Lieut.-Col. J. G. Harwood to Southern District; Capt. C. W. Mainprize to Salisbury Plain; Lieuts. H. T. Wilson, W. H. Hills, P. A. Jones, to Netley.

We propose to begin the publication of notes concerning Bartholomew's men in the Naval Medical Service in the May issue.

New Addresses.

ANDREWS, H. A., St. Mary's, Tonbridge.
COMPTON, A., 3, Mount View Road, Crouch Hill.
COOKE, R. T., Brightwalton, Wantage, Yorks.
FAULDER, T. J., 50, Welbeck Street, W.
GARRATT, G. C., Summersdale, Chichester.
OWLES, O. W., Monkland, Longton, Staffs.
STAWELL, R. DE S., Castle Gates, Shrewsbury.
TOSWILL, L. R., 34, West Southernhay, Exeter.
URWICK, R. H., 11, Dogpole, Shrewsbury.

Births.

BOUSFIELD.—On March 2nd, at 35, Princes Square, W., the wife of Stanley Bousfield, M.B., of a son.
SOWRY.—On March 12th, at King Street, Newcastle, Staffordshire, the wife of Geo. H. Sowry, M.B., B.S., F.R.C.S., of a daughter.
STEPHENS.—At Laingsburg, Cape Colony, February 20th, the wife of H. H. Stephens, of a son.

We regret that the notice of a birth from Castle Street, Reading, has been mislaid.

Marriage.

FORBES—PAUL.—On February 27th, at All Souls' Church, Langham Place, W., James Graham, M.D., M.R.C.P., son of the Rev. G. Forbes, Incumbent of Christ Church, Clevedon, Somerset, to Muriel Watson, eldest daughter of the late Dr. Ernest Watson Paul, of Cowes, Isle of Wight.

NOTICE.

All Communications, Articles, Letters, Notices, or Books for review should be forwarded, accompanied by the name of the sender, to the Editor, ST. BARTHOLOMEW'S HOSPITAL JOURNAL, St. Bartholomew's Hospital, Smithfield, E.C.

The Annual Subscription to the Journal is 5s., including postage. Subscriptions should be sent to the MANAGER, W. E. SARGANT, M.R.C.S., at the Hospital.

All communications, financial or otherwise, relative to Advertisements ONLY, should be addressed to ADVERTISEMENT MANAGER, The Warden's House, St. Bartholomew's Hospital, E.C. Telephone: 4953, Holborn.

A Cover for binding (black cloth boards with lettering and King Henry VIII Gateway in gilt) can be obtained (price 1s. post free) from MESSRS. ADLARD AND SON, Bartholomew Close. MESSRS. ADLARD have arranged to do the binding, with cut and sprinkled edges, at a cost of 1s. 6d., or carriage paid 2s. 3d.—cover included.